

## DRAWINGS ATTACHED

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- (21) Application No. 21481/68 (22) Filed 7 May 1968  
 (23) Complete Specification filed 14 July 1969  
 (45) Complete Specification published 5 July 1972  
 (51) International Classification A62B 35/02  
 (52) Index at acceptance  
 A3V 9B2C  
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## (54) IMPROVEMENTS IN PILLAR LOOPS

(71) We, TELEFLEX LIMITED (formerly known as TELEFLEX PRODUCTS LIMITED), a British Company of Christopher Martin Road, Basildon, Essex, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed to be particularly described in and by the following statement:—

This invention relates to pillar loops. That is to say, it is concerned with ring or bail type members to be secured to fixed structures to provide a connection for a running length of strap or webbing, especially a strap of a motor vehicle safety belt or harness, in which instance the member is often fixed to a door pillar of the vehicle.

One difficulty with such pillar loops is that the strap running through them is liable to wear. Another problem concerns the likelihood of the strap "roping" due to whip-lash action in the event of a vehicle crash. Yet another consideration is the protection of vehicle occupants from injury if thrown into contact with the pillar loop. It is an object of the invention to achieve improvement in any or all of these respects.

According to the present invention, there is provided a pillar loop comprising a metal bracket portion for bolting to a fixed structure and, in one integral piece therewith, a bail portion which extends along one margin of the bracket portion, said bail portion being formed with a webbing slot extending generally parallel to said bracket portion margin and having its ends curved in the direction toward the bracket portion. A smooth finish that will not cause bodily injury, and will protect the strap from wear, may be achieved on the bail portion by moulding a hard-wearing synthetic plastics covering material around the metal. Also, the bracket portion may be provided with a snap-on plastics cover to enclose the head of the fixing bolt and match up with the

plastics moulding on the bail portion so as to leave no uncovered metal.

One form of pillar loop in accordance with the invention is shown by way of example in the accompanying drawings, in which:—

Figure 1 is a general elevation of the pillar loop, and

Figure 2 is a view in section on the line 2-2 of Figure 1.

The pillar loop has a metal bracket portion 11 of generally triangular form with a hole 12 for a fixing bolt. Along the base of the triangle the margin of the bracket portion is in one integral piece with a metal bail portion 13 having rounded corners 14 and a webbing slot 15. The slot 15 is parallel to the base of the bracket triangle, except that its ends are smoothly curved, as at 16, each through something under a right angle and in the direction generally toward the apex of the bracket triangle. The bracket portion 11 is slightly cranked, as at 17, so that when it is secured by a fixing bolt to a flat surface the bail portion 13 stands off slightly away from that surface.

The metal of the bail portion 13 is surrounded by a moulded covering 18 of a tough synthetic plastics material thereby avoiding sharp metal edges both at the periphery 19 of the bail portion and inside where it bounds the slot 15. The moulded covering 18 extends around the curved ends 16 of the slot but not along the centre portion 20 of the base of the triangular bracket portion 11.

To cover the bracket portion 11, and enclose the head of the fixing bolt received in the hole 12, a snap-on plastics cover 21 is provided which is of generally-convexly curved form at its outside and has flange portions 22 to overlie the otherwise uncovered metal edges of the bracket portion 11. This cover 21 is cut at 23 to match the form of the moulded plastics covering 18

[Price 25p.]

on the bail portion 13, so that the snap-on cover 21 and the permanent covering 18 together shroud the entire metal surface of the bracket and bail portions, that is to say with the exception of the back metal surface 24 of the bracket portion that lies contiguous with the surface to which the bracket portion is fixed in use. The cover 21 is of hard plastics thin enough to be resilient and it has lips 25, 26 to snap under the apex and the base edge of the triangular bracket portion to hold it in place. It may also have an internal pad to prevent rattle.

The complete pillar loop with its coverings therefore has a smoothly styled exterior to avoid bodily injury to any person thrown into contact with it; and the inside metal edges of the slot 15 are substantially entirely covered by plastics material so that the strap webbing cannot run in contact with metal.

WHAT WE CLAIM IS:—

1. A pillar loop comprising a metal bracket portion for bolting to a fixed structure and, in one integral piece therewith, a bail portion which extends along one margin of the bracket portion, said bail portion being formed with a webbing slot extending generally parallel to said bracket portion

margin and having its ends curved in the direction toward the bracket portion.

2. A pillar loop according to claim 1, wherein the metal bracket portion is of generally triangular form with a hole for a fixing bolt, and the bail portion extends along the side of the triangle.

3. A pillar loop according to claim 1 or claim 2, wherein a hard-wearing synthetic plastics covering material is moulded on to the metal surfaces of the bail portion.

4. A pillar loop according to claim 1 or claim 2 or claim 3, wherein the bracket portion is slightly cranked along a line near to the bail portion and parallel to the webbing slot, for the purpose herein described.

5. A pillar loop according to claim 2, or claims 2 and 3, or claims 2 and 4, wherein the bracket portion receives a snap-on plastics cover adapted to enclose a fixing bolt when positioned in said hole.

6. A pillar loop substantially as herein described with reference to the accompanying drawings.

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*Fig. 1*



